REMARKS/ARGUMENTS

Claims 1-23 are pending in this application. Claims 1-11 have been indicated as withdrawn in view of a Restriction Requirement. No claims have been amended, cancelled, or added with the filing of this response. Reconsideration of the application is requested in view of the following remarks.

Rejections under 35 U.S.C. §§ 102 & 103

The rejection of claims 12, 14-18, and 20-22 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 3,743,612 to Vial, and the rejection of claims 19 and 23 under 35 U.S.C. § 103(a) as obvious over Vial are respectfully traversed for the reasons discussed below.

Regarding anticipation, it emphasized in MPEP § 2131, that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) . . . "***The identical invention must be shown in as complete detail as is contained in the . . . claim***." (*See, Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (Emphasis added).)

Regarding obviousness, it is well known that rejections under §103(a) must comply not only with the statutory provisions of §103, but also with the controlling case law. As was recently reaffirmed by the U.S. Supreme Court, *Graham v. John Deere Co. of Kansas City* sets out the controlling factual inquiries that must be made when considering and making a determination of obviousness under Section 103(a). (*See, KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734-1740 (2007), citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966); *see also* MPEP §2141, informing that it is Office policy to follow the teachings of *Graham*.) The *Graham* factual inquires, *inter alia*, include ***determining the scope and contents of the prior art; ascertaining the differences between the prior art and the claims in issue;*** *and* ***resolving the level of ordinary skill in the pertinent art***.

Applicant respectfully asserts that in view of the above legal precedent and differences between Vial and the claimed invention, it is apparent that the disclosure of Vial fails to anticipate or render obvious the features of Applicant's claim 12 and the claims dependent therefrom. In particular, claim 12 specifically recites a process for producing polymer foams

which are based on reactive polycondensation resins and have a number average pore diameter of not more than 1 m by gel formation comprising:

> **1)** preparing a gelable mixture of the reactive polycondensation resin in a solvent or dispersion medium,
>
> **2)** preparing an aqueous dispersion comprising polymer particles,
>
> **3)** mixing the mixture of the reactive polycondensation resin from step 1) with the dispersion comprising polymer particles from step 2) to give a water-containing gel, and
>
> **4)** drying the water-containing gel to give the polymer foam,
>
> with drying in step 4) being carried out at a pressure and a temperature which are below the critical pressure and below the critical temperature of the liquid phase of the gel and
>
> the gel not being brought into contact with an organic liquid to replace the water present in the gel by this liquid after step 3) and before step 4).

By contrast, Vial does not describe or suggest all of the several components of the instant process of making a polymer foam. Vial describes two procedures to make a vulcanisate out of the combination of (a) latex and (b) coreactive resin and (c) a tetraammine zinc (II) salt as catalyst.

Specifically, Vial describes a process of preparing a solid carboxylated latex vulcanisate by mixing (a) the latex and (b) the coreactive resin and (c) a tetraammine zinc (II) salt as catalyst, curing and drying the resulting composition (see claim 4). However, Vial does not describe how (i) to make a water containing gel (cf. step (3) in the instant claims), (ii) that the obtained solid vulcanisate is even a foam (meaning being porous) and (iii) that it bears pores having a number average pore diameter of not more than 1 micro meter.

Moreover, the "latex vulcanisate" of Vial is not a "polymer foam [...] based on reactive polycondensation resins" (cf. claim 1 of the instant application). Latex is chemically completely different from polycondensation resin.

In order to construe claim 4 of Vial, one can only look to Example IV of Vial (col. 6 line 3-46). However, even in that example nothing is disclosed as to formation of a gel. Further, it appears that the mixtures with or without catalyst were instantaneously air dried after they had been put together and drawn down on a glass plate.

A major difference of Vial, vis-à-vis the instant process, is that after combining the instant components in step 3) a gel must be formed according to step 3 - exactly so that the formed gel is then dried. This is a prerequisite for making the instant nanoporous foams.

At the place where Vial mentions a foam (claim 7), that procedure for making the foam is completely different from the one described and claimed in the instant application. Vial, at claim 7, describes a process for preparing a solid foam by (1) mixing (a) the latex and (b) the coreactive resin and (c) a tetraammine zinc (II) salt as catalyst, (2) foaming the resulting mixture, (3) gelling the resulting foam, and (4) curing and drying the gelled foam.

Vial describes that "foaming" in step (2), shown *supra*, means foaming or frothing of the mixture of the components (a), (b) and (c) by using blowing agents or mechanical means (see Vial, col. 4, lines 42-51). The frothed mixture is then applied to substrates and then cured (see Vial, col. 4, line 70 to col. 5, line 20). A gelation is only mentioned in the context of the description of the foaming procedure (see Vial, col. 4, lines 63-69). By contrast, the instant invention does not use frothing means (chemical or mechanical) in order to obtain the nanoporous foam.

The differences between Vial and the claimed invention are also shown by the table below.

Instant Invention	**Vial Disclosure**
The instant invention prepares a gel before drying	Vial does not disclose the formation of such gel
The instant invention prepares polymer foams based on reactive polycondensation resins	Vial prepares latex vulcanisates
The polymer foams of the instant invention have a number average pore diameter of not more than 1 micro meter	Vial discloses neither pores nor their diameter
The instant invention does not claim to use a catalyst for making the instant polymer foams	Vial mandatory claims to use a tetraammine zinc (II) salt as catalyst for making the latex vulcanisates or related foams

In light of the above-shown several differences, the claimed process is clearly not anticipated by the disclosure of Vial.

Regarding obviousness, Applicants point out that the gist of Vial is (a) to provide an alkaline catalyst (tetraammine zinc(II) salt (cf. the claims) for the curing of a reactive latex with a coreactive resin, and the role of the catalyst is to promote the cure and to do it as quick as possible and at low temperature (Vial, col. 2, lines 25-27 and lines 58-60) and (b) to provide a method for making foams from a carboxylated latex/coreactive resin composition without resorting to the use of high temperatures and long reaction times (Vial, col 2, line 64 to col. 3, line 2).

By contrast, the gist of the instant application is to make nanopourous foams based on reactive polycondensation resins by using no catalysts (see page 4, paragraph [0059] of the related US Patent Application Publication 2007/0197744 A1). Thus, one would not look to or rely on Vial to reconstruct the claimed process, since Vial clearly teaches away from the instant application. (*See*, *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) (indicating that prior art references must be considered in their entirely, as a whole, including any disclosures that lead away from the claims at issue.))

Further, the Office has not shown or provided an apparent reason, other than improper hindsight of the present specification, that one would be motivation to modify to achieve the claimed process in view of the several unobvious differences.

Therefore, claim 12 and those dependent therefrom are novel and unobvious over Vial. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

In view of the foregoing, Applicant respectfully submits that this application is now in condition for allowance. A notice to this effect is respectfully requested.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00348-US1 from which the undersigned is authorized to draw.

Dated: March 22, 2010

Respectfully submitted,

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